

WHAT IS CLAIMED IS:

1. A heavy duty liquid laundry detergent composition characterized by a surfactant system, wherein the surfactant system is characterized by from 0.1% to 20%, preferably from 0.5% to 19%, and more preferably from 1% to 18%, by weight of the surfactant system of an alkyl benzene sulfonate surfactant, and wherein the surfactant system has a Hydrophilic Index, HI_C , of from 8.0 to 9.2, preferably from 8.2 to 9.1, and more preferably from 8.4 to 9.0, wherein

$$HI_C = \sum_y (\text{weight \% of surfactant } y \text{ in the surfactant system}) \times (HI_{Sy})$$

where HI_{Sy} is calculated for each of the surfactants in the surfactant system as follows:

$$HI_{Sy} = 20 \times (\text{the molecular weight of the hydrophilic portion of surfactant component } y) / (\text{the molecular weight of surfactant component } y).$$

2. A heavy duty liquid laundry detergent composition according to claim 1 wherein surfactant system is characterized by surfactants selected from the group consisting of non-soap anionic, nonionic, cationic, amphoteric, amine, poly hydroxy fatty acid amines and mixtures thereof.

3. A heavy duty liquid laundry detergent composition according to any of claims 1-2 further characterized by a deterative amount of an enzyme selected from the group consisting of alkaline protease, mannanase, α -amylase variants, and mixtures thereof, preferably the enzyme is present in an amount of from 0.0001% to 1.5%, more preferably from 0.00018% to 1.0%, and most preferably from 0.00024% to 0.5%, by weight of the detergent composition of the pure enzyme.

4. A heavy duty liquid laundry detergent composition according to any of claims 1-3, further characterized by from 2% to 15% by weight of the composition of a fatty acid.

5. A heavy duty liquid laundry detergent composition according to any of claims 1-4, wherein the surfactant system is characterized by from 10% to 40%, preferably from 12% to 35%, and most preferably from 15% to 32%, by weight of the composition.

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6. A heavy duty liquid laundry detergent composition according to any of claims 1-5, wherein the detergent composition additionally is characterized by adjunct ingredients selected from the group consisting of non-citrate builders, optical brighteners, soil release polymers, dye transfer inhibitors, polymeric dispersing agents, additional enzymes, suds suppressers, dyes, perfumes, colorants, filler salts, hydrotropes, antiredeposition agents, antifading agent, chelants, dye fixative agents, prill/fuzzing reducing agents, and mixtures thereof.
7. A heavy duty liquid laundry detergent composition according to any of claims 1-6, wherein the detergent composition additionally is characterized by a structurant which is present at from 2.0% to 6.0%, by weight of the composition.
8. A heavy duty liquid laundry detergent composition according to any of claims 1-7, wherein the structurant is selected from the group consisting of carboxylates, polycarboxylates, amino carboxylates, polycarboxylates, carbonates, bicarbonates, phosphates, phosphonates and mixtures thereof.
9. A heavy duty liquid laundry detergent composition according to any of claims 1-8, further characterized by sodium sulfate present at from 1.0% to 5.0%, by weight of the detergent composition.
10. A heavy duty liquid laundry detergent composition according to any of claims 1-9, further characterized by a citrate builder.

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